

Solar PV Financing Workshop for Massachusetts Financial Institutions

**January 22, 2013
Boston, MA**

DOE SunShot Initiative



- Workshop funded by the **U.S. Department of Energy SunShot** Initiative - goal to make solar energy systems cost-competitive by 2020
- MA team, led by DOER, received funding from the **SunShot Initiative Rooftop Solar Challenge** – focused on lowering “soft costs” of solar (e.g. permitting, zoning, financing)
- Our team: DOER, MassCEC, MassDevelopment, BBRs, SEBANE, municipalities: Boston, Cambridge, Harvard, Hatfield, and Winchester)



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Goals for This Workshop

- Rooftop Solar Challenge goal to develop alternative financing options for solar PV
- Understand current barriers to solar financing, provide useful information to lenders
- Get your feedback and ideas on how the state can help facilitate more solar lending in MA



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Commonwealth's Solar Goals

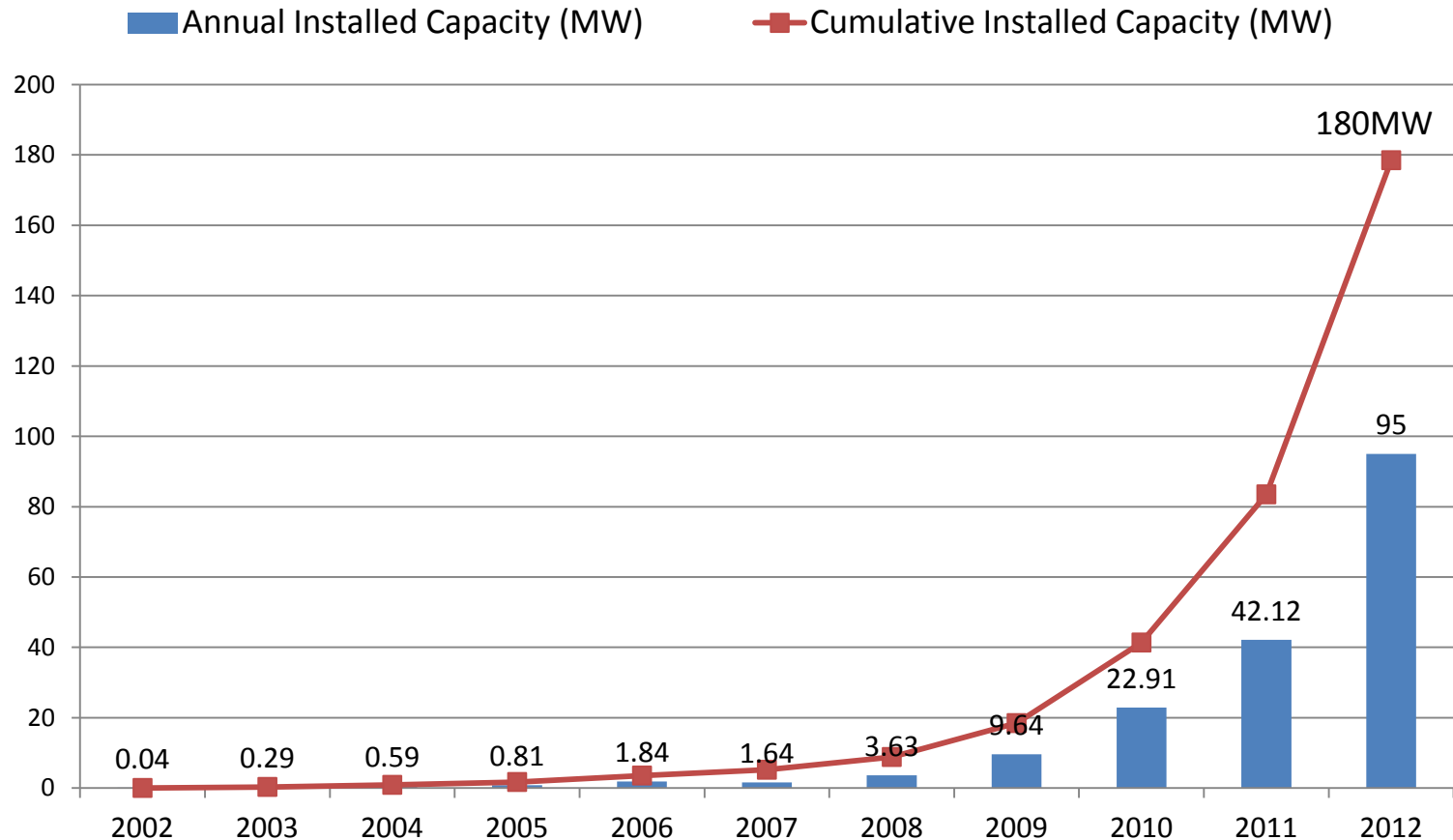
- Gov. Patrick's goal – 250 MW by 2017
- Commonwealth solar rebates
- Global Warming and Green Communities Acts (2008)
- Renewable Portfolio Standard (RPS) and Solar Carve-Out – 400 MW goal
 - 2011 ACP Spending Plan - \$15 million for small PV system financing



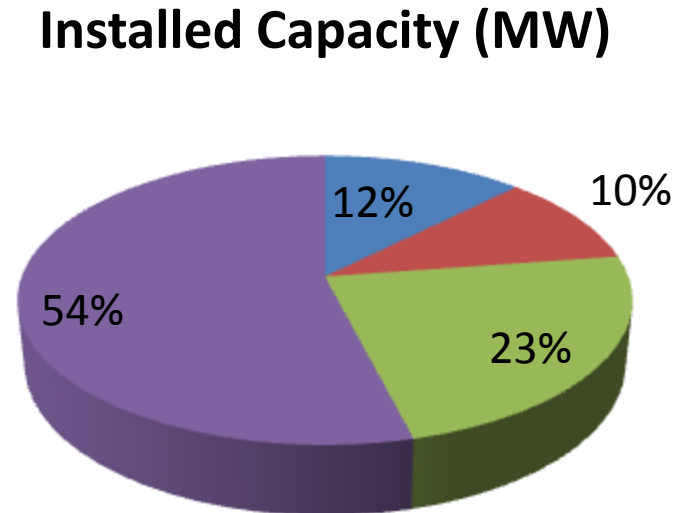
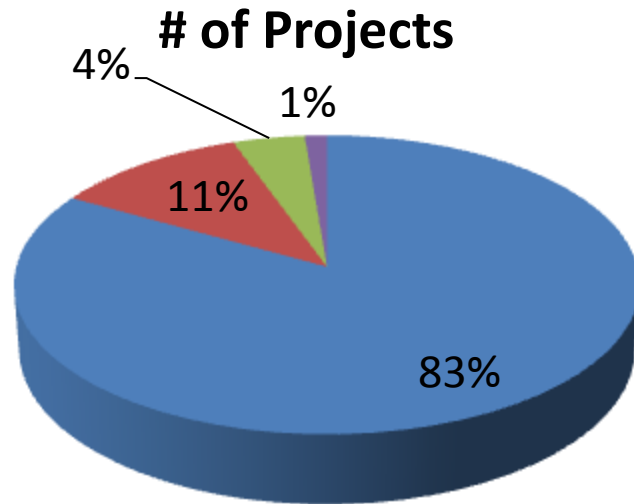
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Current Status and Trends in the MA Solar Market

Installed Solar Capacity in MA (as of 11/28/12)



Project Size – Number and Capacity



- < 10 kW
- 10-100 kW
- 100-500 kW
- > 500 kW

Project Financing

Number of Projects

- **About 50% of projects** - privately-financed, site-owned projects
- **Over 40% of projects** - financed through Power Purchase Agreements (PPAs) or leases

Total Installed Capacity

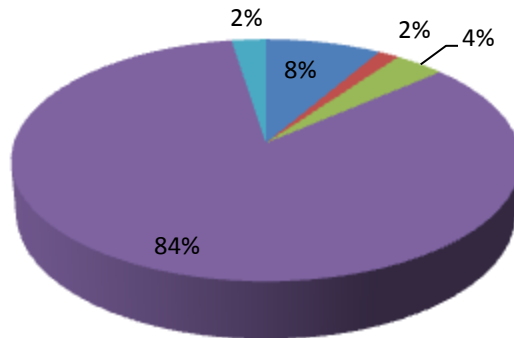
- **37% of total installed capacity** – large, ground-mounted projects; sell net metering credits to off-site entities
- **25% of capacity** - PPAs or leases generating power for on-site use
- **20 % of capacity** – privately-financed, site-owned



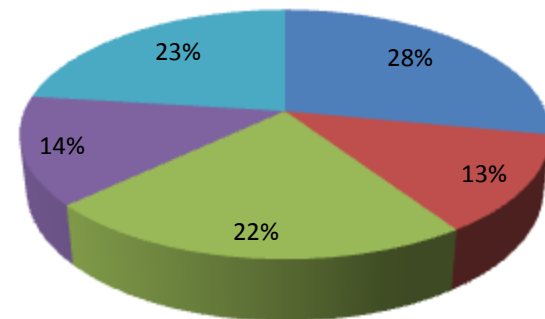
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Projects By Sector

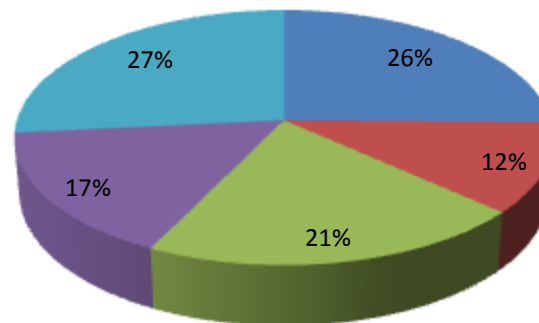
of Projects



Installed Capacity (MW)



Installed cost (\$)



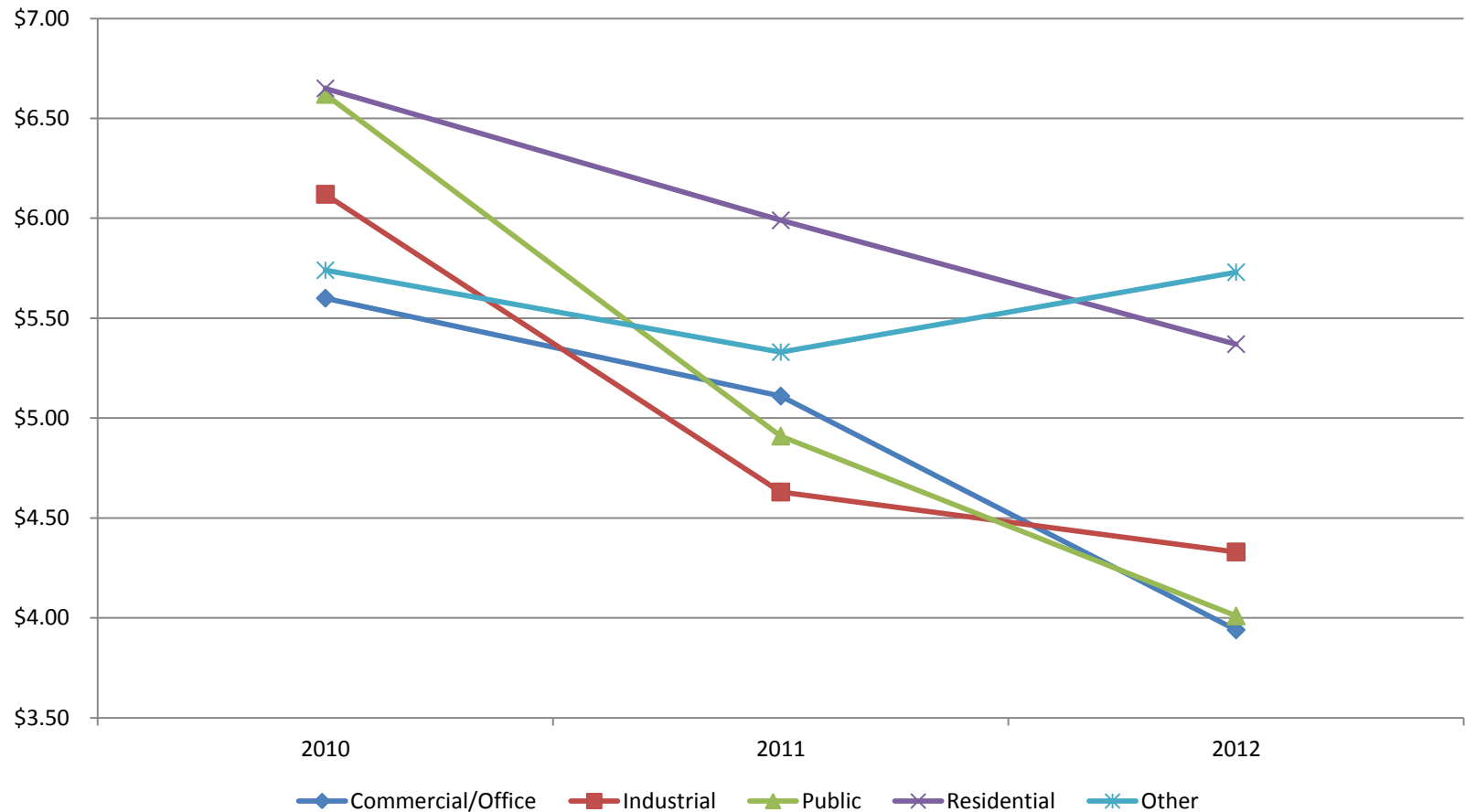
- Commercial/Office
- Industrial
- Public
- Residential
- Other



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Costs are decreasing

Average Installed Cost (\$/Watt)



MA Compared to Other States

- As of July 1, 2012 – 3rd in commercial installations and 5th in residential installations
- 2nd lowest weighted average commercial installation costs
- 340 of 351 municipalities have at least one state-supported solar installation
- Will likely move into top ten states with most installed capacity by the end of 2012
 - More capacity installed in 2012 than all previous years combined



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Thank You!

Discussion Kickoff

- 2011 ACP Spending Plan – \$15 million for Small PV System Subsidized Loan or SREC Pre-Buy (Target: 10-20MW)
 - Subsidized loan program in coordination with HEAT Loan program banks
 - SREC Pre-Buy program
 - Competitive solicitation to consider external ideas for financial incentives
- What would make it easier for you to work with your customers on solar financing?
- Other ideas or suggestions?